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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,859	09/30/2003	Kelly Statham	0153/90550	1877
24628	7590	10/04/2007	EXAMINER	
WELSH & KATZ, LTD 120 S RIVERSIDE PLAZA 22ND FLOOR CHICAGO, IL 60606			LAO. LUN S	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/675,859

Applicant(s)

STATHAM ET AL.

Examiner

Lun-See Lao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>08-30-2007</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### *Introduction*

1. This action is response to the amendment filed on 07-10-2007. Claim 1 has been amended and claims 17-20 have been added. Claims 1-20 are pending.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Claim 1, recites "said center control", which is unclear to the examiner what is "said center control" referring to, a set of functions related to a wireless audio system from a remote central control or a center control through a communication network.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 17-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Anderson (US PAT. 5,721,783).

Consider claim 17 Anderson teaches a wireless microphone system comprising: a microphone; a wireless transmitter (see fig.2); and

a CPU (reads on DSP (948) in fig.9), the transmitter wirelessly transmitting an audio signal from the microphone and a plurality of status indicators of the wireless microphone provided by the CPU (see figs. 2 and 9 and col. 5 line 60 –col. 6 line 25 and col.14 line 30-col. 15 line 67).

Consider claim 18 Anderson teaches that a wireless receiver located in the surrounding area of the wireless microphone that receives the transmitted audio signal and plurality of status indicators from the wireless microphone; a central control that remotely controls a set of functions of the wireless microphone system; and a communications link established between the wireless receiver and central controller through a public communication network(see figs. 2 and 9 and col. 5 line 60 –col. 6 line 25 and col.14 line 30-col. 15 line 67).

Consider claim 19 Anderson teaches a wireless microphone system comprising:

a handheld wireless microphone or body pack including an audio management block (see fig.2) ,

a CPU(reads on DSP (948) in fig.9), a modulator and an output antenna wherein the audio management block changes an audio signal into an electric signal, the CPU provides coded information about the handheld wireless microphone or body pack and the modulator modulates the changed audio signal and coded information for wireless

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transmission through the output antenna (see figs. 2 and 9 and col. 5 line 60 –col. 6 line 25 and col.14 line 30-col. 15 line 67).

Consider claim 20 Anderson teaches the wireless microphone system further comprising: a wireless receiver located in the surrounding area of the handheld wireless microphone or body pack that receives the transmitted audio signal and plurality of status indicators from the wireless microphone; a central control that remotely controls a set of functions of the wireless microphone system; and a communications link established between the wireless receiver and central controller through a public communication network(see figs. 2 and 9 and col. 5 line 60 –col. 6 line 25 and col.14 line 30-col. 15 line 67).

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-5 and 7, 9, 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Shiraishi (US PAT. 6,954,538).

Consider claim 1 as best understood with regards to the 112, 2nd problem mentioned above, Shiraishi teaches a method for remotely controlling (see fig.4) a set of functions related to a wireless audio system from a remote central control, said method comprising the steps of:

providing an audio system (fig.4) that includes a transmitter (104,304) and a receiver (105,305);

detecting an audio signal via an acoustic transducer located within the transmitter (see fig. 4 (300));

transmitting data from the transmitter (304) to the receiver (105) of said audio system (see fig.4) and storing said data therein, said data including the detected audio signal two or more characteristics regarding said transmitter.

establishing a link between the receiver of said wireless audio system (fig.4) and a central control through a communication network (reads on 300 in fig. 4 and 100 with speakers network (201-206) and see col. 7 line 44-col. 8 line 18);

determining (see fig.3) whether or not any problems exist (by test tone) by monitoring said data stored in said receiver from said central control; communicating from said remote control to said audio system appropriate remedial actions to alleviate any of said problems (see col. 6 line 13-col. 7 line 42).

Consider claims 2-5 Shiraishi teaches that the audio system comprises a wireless audio system (see fig.4 and see col. 7 line 67); and the wireless audio system comprises a wireless microphone system (300, (306) and see col. 7 line 44-67); and the transmitter comprises a handheld (see fig.6 and see col. 8 lines 33-55); and the transmitter comprises a body pack (see fig.6 and see col. 8 lines 33-55).

Consider claims 7 and 9, Shiraishi teaches that the data comprises data regarding characteristics of said transmitter or said receiver that can be monitored but not controlled (see col. 7 line 15-42); and the data comprises data regarding characteristics of said transmitter or said receiver that can be monitored and controlled (see col. 7 line 44-col.8 line 18).

Consider claim 11 Shiraishi teaches that the communicating step includes the step of transmitting replacement data to said receiver that is implemented by said receiver (see fig.4 and col. 7 line 44-col. 8 line 18).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shiraishi (US PAT. 6,954,538) in view of Agashe (US PAT. US 2003/0190924).

Consider claim 6 Shiraishi fails to teach that the receiver comprises a diversity receiver.

However, Agashe teaches that the receiver comprises a diversity receiver (see page 1 [0006]).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of Agashe into Shiraishi so that more different kinds of data could have been received by the receiver.

10. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shiraishi (US PAT. 6,954,538) in view of Hameleers (US PAT. 6,920,134).

Consider claim 8, Shiraishi teaches that the data is selected from a group consisting receiver RF / level, receiver AF level (the electromagnetic wave or infrared radiation should have receiver RF / level, receiver AF level and see col. 5 line 22-40); but Shiraishi does not explicitly teach that the data is selected from a group consisting receiver internet protocol address, receiver link address.

However, Hameleers teaches that the data is selected from a group consisting of receiver internet protocol address, receiver link address (see col. 4 line 6-20).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of Casais into Shiraishi to provide the network of the communication system the ability to efficiently handle transfer data.

11. Claims 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiraishi (US PAT. 6,954,538) in view of Fukui (US PAT. 4,197,498).

Consider claim 10 Shiraishi teaches that the transmitting data from the transmitter is selected from a group consisting of: receiver name, receiver frequency, receiver squelch level, receiver meter hold (see fig.6), receiver antenna power, receiver mute, default display on receiver state, receiver lock condition, receiver load present, and receiver save preset (see fig.6 and col. 6 line13-54); but Shiraishi does not explicitly teach that the transmitting data from the transmitter is selected from a group consisting of: receiver squelch level.

However, Fukui teaches that the transmitting data from the transmitter is selected from a group consisting of: receiver squelch level (see fig.1 and see col. 2 line 3-29).



Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of Fukui into Shiraishi to provide higher fidelity output audio sound signal with squelch level control.

Consider claim 12 it is essentially similar to claim 10 and is rejected for the reason stated above apropos to claim 10.

12. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiraishi (US PAT. 6,954,538) in view of Casais (US PAT. 6,288,641).

Consider claim 13 Shiraishi does not explicitly teach that the receiver of said audio system comprises a master receiver and two or more slave receivers that are operatively coupled to said master receiver, each of said slave receivers including a slave transmitter associated therewith.

However, Casais teaches that the receiver of said audio system (see fig. 1 (10)) comprises a master receiver (52) and two or more slave receivers (54) that are operatively coupled to said master receiver (52), each of said slave receivers (12) including a slave transmitter associated therewith (see col. 4 line 40- col. 6 line 48).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of Casais into Shiraishi so that increased flexibility of remote monitoring system could be provided to the user.

Consider claim 14 casais teaches that the transmitting step (see fig.1 (10)) comprises the step of transmitting data from the slave transmitter (12) associated with one of said

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slave receivers to said master receiver (52), and transmitting said data from said master receiver to said central control (42 and see col. 4 line 40- col. 6 line 48).

13. Claims 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiraishi (US PAT. 6,954,538) in view of Chang (US PAT. 6,337,913).

Consider claim 15 Shirashi teaches that the said transmitting step (see fig.4) comprises the steps of combining data associated with said transmitter with a tone signal (fig.3), mixing said combined data/ tone signal with an audio signal, and transmitting said combined data/ tone/audio signal to said receiver (see col. 6 line 13- col. 7 line 42); but Shirashi does not explicitly teach that the said transmitting step comprises the steps of combining data associated with said transmitter with a pilot tone signal, mixing said combined data/pilot tone signal with an audio signal, and transmitting said combined data/pilot tone/audio signal to said receiver.

However, Chang teaches that the said transmitting step (see fig.4) comprises the steps of combining data associated with said transmitter with a pilot tone signal (33), mixing said combined data/pilot tone signal with an audio signal, and transmitting said combined data/pilot tone/audio signal to said receiver (see col. 3 line 63-col. 4 line 12).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of Chang into Shiraishi to achieve a high receiving performance.

Consider claim 15 Chang teaches that the pilot tone signal is at approximately 32 kHz (see abstract).

***Response to Arguments***

14. Applicant's arguments with respect to claim 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argued that Shiraishi does not transmit audio to a receiving device (see remarks page 7 3<sup>rd</sup> paragraph). The examiner's response is that argument "transmit audio to a receiving device" is not claimed, and thus moot. See the final rejection for the argument.

***Conclusion***

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Shiraishi (US 2003/0043051) is cited to show other related method and apparatus for remote control of an audio source such as a wireless microphone system.

17. Any response to this action should be mailed to:

Mail Stop \_\_\_\_ (explanation, e.g., Amendment or After-final, etc.)

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Facsimile responses should be faxed to:  
**(571) 273-8300**

Hand-delivered responses should be brought to:  
Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lao,Lun-See whose telephone number is (571) 272-7501. The examiner can normally be reached on Monday-Friday from 8:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian, can be reached on (571) 272-7848.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 whose telephone number is (571) 272-2600.

Lao,Lun-See *L.S.*  
Patent Examiner  
US Patent and Trademark Office  
Knox  
571-272-7501  
Date 09-21-2007

  
VIVIAN CHIN  
SUPERVISOR PATENT EXAMINER  
TECHNOLOGY CENTER 2600